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SUBJECT: **ARCHITECTURAL TECHNICAL GUIDE 0022 (January 1, 2005)**
 Development Standards:
 Requirements for New and Existing SFH and MFH Construction Projects

PURPOSE:

The purposes of this Architectural Technical Guide (ATG) are to: (1) transmit the current Rural Development-adopted “development standard” for the State of Colorado [ref: RD Instruction 1924-A, subparagraph 1924.5 (d) (1) (i) (E) (1)] for single family housing and multi-family housing new construction and additions to existing construction and (2) note that construction drawings and specifications for single family direct loan and guaranteed loan housing as well as multi-family housing new construction and additions to existing construction should be certified in accordance with Subparagraph 1924.5 (f) of the Instruction as meeting the Rural Development-adopted development standard.

IMPLEMENTATION RESPONSIBILITIES:

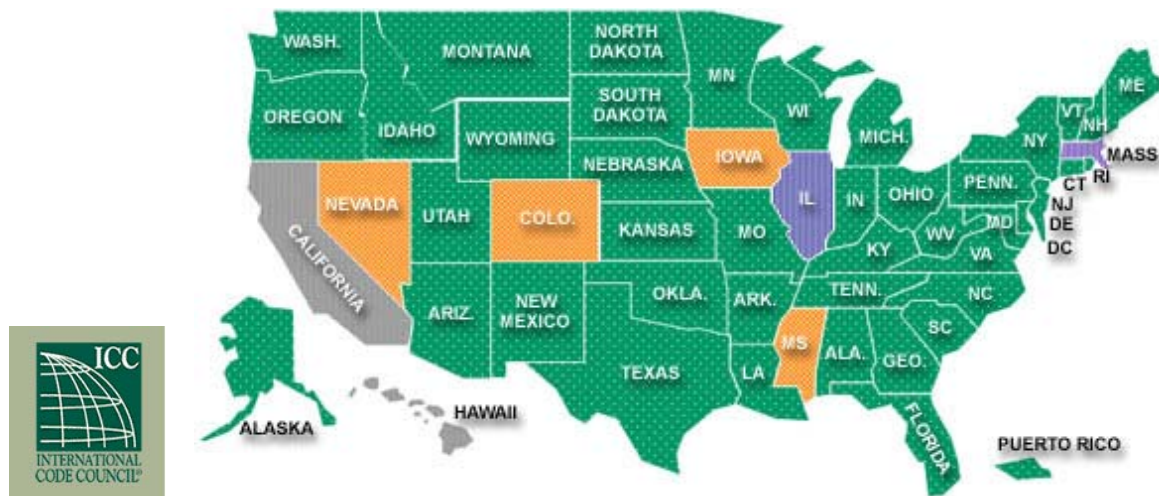
Development Standard

The USDA/Rural Development phased out its usage of the U.S. Department of Housing and Urban Development’s (HUD’s) “*Minimum Property Standards*” series construction design guide documents for single family housing and multi-family housing programs financed new construction and additions to new construction in the 1980s in recognition that local building department enforcement of model building codes was becoming commonplace nationwide. Revisions to RD Instruction 1924-A accomplished the implementation of a replacement design guidance concept, the subparagraph 1924.5 (d) (1) (i) (E) (1) “development standard”, determined to fit each state’s unique requirements.

Paralleling Rural Development’s transition to a new building design standard regime has been the building industry’s own nationwide transition from multiple model building code development organizations to a single, predominant, model building code development organization, the International Code Council (ICC), starting in the 1990s. This has resulted in the gradual adoption of the ICC series of model code documents (the International Building Code, International Plumbing Code, and International Mechanical Code) by numerous states and individual building departments with regard to modular and stick-built housing. The State of Colorado is no exception, however, Colorado is nowadays one of the few states that do not enforce a single series of model building codes statewide, rather exercising to permit home rule by municipal and county building departments on this matter.

Following is a map of the United States (updated on 01/13/05) issued by the ICC that depicts the status of ICC code adoptions within the various states. One can discern that Colorado is one of six states that have not trended toward full statewide adoption and enforcement of the ICC model code documents.

- 44 states plus Washington, D.C. and the Department of Defense use the *International Building Code*
- 44 states plus Washington, D.C. use the *International Residential Code*
- 36 states plus Washington, D.C. use the *International Fire Code*



International Code Council document adoptions, by U.S. state

Updated: 01/13/05

ICC makes every effort to provide current, accurate code adoption information, but in some cases jurisdictions do not notify ICC of adoptions, amendments or changes to their codes. To ensure you have accurate information, please contact the jurisdiction directly.

	One or more International Codes® currently enforced statewide		One or more International Codes® enforced within state at local level		One or more International Codes® adopted statewide with future enforcement date
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The following discussion pertains only to site-built and to modular types of construction [ref.: RD Instruction 1924-A, Exhibit B]. Manufactured housing, another type of construction, is covered by a single, distinctly different, national building standard, the HUD developed “*Federal Manufactured Home Construction and Safety Standards*” [ref.: RD Instruction 1924-A, Exhibit J]. Following are definitions for the three types of housing construction:

- **“Manufactured” housing:** Factory-built construction designed to conform to the U.S. Department of Housing and Urban Development (HUD), “*Federal Manufactured Home Construction and Safety Standard*” (FMHCSS). Manufactured housing includes single-wide and double-wide transportable modules. Manufactured housing is inspected in the factory by a Design Approval Primary Inspection Agency (DAPIA), overseen by HUD.

- “Modular” housing: Factory-built construction designed to conform to the ICC or other series of model building codes and standards which include, among others, a building code, a plumbing code, and a mechanical code. Modular housing includes single-wide and double-wide transportable modules as well as smaller panelized construction assemblies. Modular housing is inspected in the factory (whether in-state or out-of-state) by the Colorado Division of Housing or by their equivalent through reciprocity if constructed outside Colorado.
- “Site-built” housing: Site-built construction designed to conform to the ICC or other series of model building codes and standards which include, among others, a building code, a plumbing code, and a mechanical code. Stick-built construction is currently the most common building type. “Manufactured” and “modular” housing units must be installed on a “stick-built” permanent foundation system.

Subparagraph 1924.5 (d) of the Instruction states that all newly constructed buildings and additions to existing structures built under the Rural Housing Program should be planned in accordance with good construction practices, applicable locally and State enforced laws, codes, ordinances, and regulations regarding safety, and Rural Development’s “development standard”. All stick-built and modular housing financed by Rural Development should, therefore, conform to all the following minimum criteria:

Rural Development, Colorado State Office, Development Standard

1. International Code Council (ICC), *“International Building Code”*, 2003 Edition, including all State/National amendments, but excluding administrative sections.



2. International Code Council (ICC), *“International Plumbing Code”*, 2003 Edition, including all State/National amendments, but excluding administrative sections.



3. International Code Council (ICC), “*International Mechanical Code*”, 2003 Edition, including all State/National amendments, but excluding administrative sections.



4. National Fire Protection Association (NFPA), “*National Electrical Code*”, Edition currently in force by the Colorado State Electrical Inspector, including all State/National amendments; but excluding administrative sections.



5. Rural Development, Thermal Performance Construction Standard:

Single Family Housing: Council of American Building Officials (CABO), “*Model Energy Code*”, 1992 Edition, including all State/National amendments, but excluding administrative sections.

Multi-Family Housing: “*Thermal Performance Construction Standards*”, contained in RD Instruction 1924-A, Exhibit D.

<http://www.rurdev.usda.gov/regs/regs/pdf/1924a.pdf>

6. Rural Development other required codes and standards:

Single Family Housing: 49 FR 31528, “*Uniform Federal Accessibility Standards*” (UFAS), (optional for single family housing intended for occupancy by the disabled).

<http://www.access-board.gov/ufas/ufas-html/ufas.htm>

Multi-Family Housing: U.S. Department of Housing and Urban Development (HUD), Handbook 4910.1, “*Minimum Property Standards*”, Appendices C through F.

49 FR 31528, “*Uniform Federal Accessibility Standards*” (UFAS), (mandatory for multi-family housing projects).

<http://www.access-board.gov/ufas/ufas-html/ufas.htm>

“Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities”, (mandatory for multi-family housing projects only with respect to the public office as well as related designated parking for persons with disabilities as well as the connecting wheelchair accessible route between these two site features).

<http://www.access-board.gov/adaag/html/adaag.htm>

U.S. Department of Housing and Urban Development, *“Final Fair Housing Accessibility Guidelines”*, 56 FR 9472 9 (mandatory only for certain building types within multi-family housing projects).

<http://www.hud.gov/library/bookshelf09/fhefhag.cfm>

7. All locally and state enforced laws, ordinances, codes, and regulations related to the construction, safety, and sanitation of buildings as superseded by more stringent Rural Development codes and standards.
8. Rural Development recommended good practice guidelines:

Single Family Housing and
Multifamily Housing:

U.S. Department of Housing and Urban Development, Handbook 4930.1 (1973 Edition, including Revision 1), *“Manual of Acceptable Practices”*.

Rural Development, *“Design Guide”*. See RD Instruction 1924-A, Guide 2.

Please note that repairs to existing construction should substantially conform to the above listed building codes, standards, and guidelines, as practical.

The State Architect will maintain a set of all the above discussed reference materials. Questions regarding these documents may be referred to the State Architect for interpretation and general guidance.

Plan Certification

The following discussion pertains only to site-built and to modular types of construction [ref.: RD Instruction 1924-A, Exhibit B]. Manufactured housing, another type of construction, is covered by a single, distinctly different, national building standard, the HUD developed *“Federal Manufactured Home Construction and Safety Standards”* [ref.: RD Instruction 1924-A, Exhibit J].

Paragraph 1924.5 (f) (1) ((iii) of the Instruction states that the Rural Development should accept final construction drawings and specifications and any modifications thereof only after the documents have been certified in writing as conforming to Rural Development’s Development Standard discussed earlier. This is commonly referred to as, "plan certification". (Additionally,

prior to the start of construction Rural Development personnel should also insure that three identical “official” sets of the construction drawings and specifications are jointly signed by the borrower, the general contractor, and the Rural Development representative. These are intended to form the construction contract bid documents.)

Plan certifications for new single family housing construction may be accepted from one of the following parties:

- State registered architects.
- State registered engineers.
- Individuals currently possessing a certificate, issued by the International Code Council, for Plan Reviewers.
- Local building departments containing individuals who possess a certificate, issued by the International Code Council, for Plan Reviewers.

Plan certifications for new multi-family housing construction (more than four living unit projects) may be accepted from an individual licensed to practice architecture within Colorado (individuals registered in Colorado by the Board of Examiners of Architects).

Modifications to certified drawings or specifications should be certified by the same individual or organization that certified the original documents. If such individual or organization is not available to perform the certification of modifications, the entire set of modified drawings and specifications should be recertified.

All plan certifications should be accomplished on Form RD 1924-25, “*Plan Certification*”. Rural Development personnel should insure that all boxes are checked, as appropriate, including the seismic design box (reference [ARCHITECTURAL TECHNICAL GUIDE 0005 \(January 1, 2005\) Seismic Safety Requirements for New Building Construction and Substantial Rehabilitation Using Rural Housing Service \(RHS\), Rural Business - Cooperative Service \(RBS\), and Rural Utilities Service \(RUS\) Loan, Grant, and Guaranteed Funds](#)) and the thermal performance design box (reference [ARCHITECTURAL TECHNICAL GUIDE 0016 \(January 1, 2005\) Summary of Thermal Performance Construction Standards and Eligible Locations for Air Conditioning for New and Existing Construction Financed by the USDA/Rural Housing Service’s Single Family Housing \(SFH\) Programs](#)). Form RD 1924-25 may be downloaded from the Internet at:

<http://www.rurdev.usda.gov/regs/forms/1924-25.pdf>

Should you have any further questions on this subject, please contact the State Architect.

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